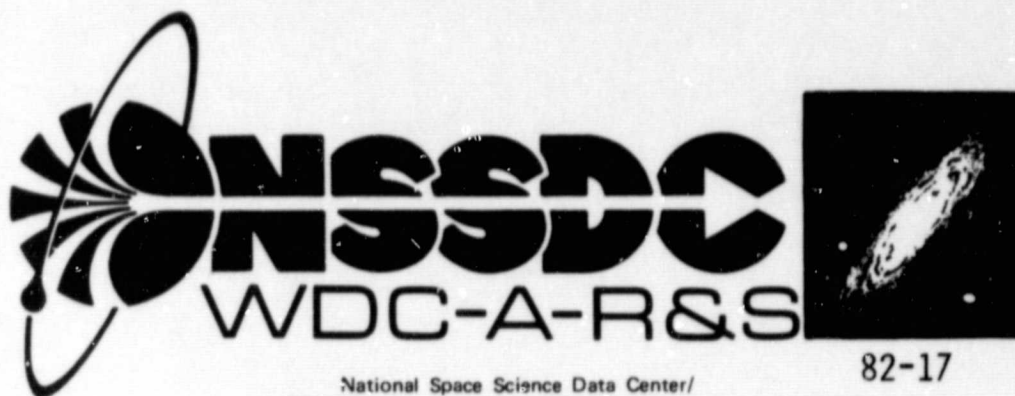


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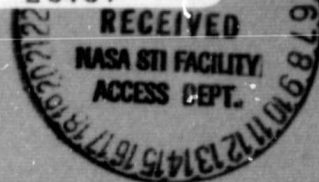
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82-17

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MACHINE-READABLE VERSION OF THE THIRD
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DOCUMENTATION FOR THE MACHINE-READABLE VERSION
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MAY 1982

DOCUMENTATION FOR THE MACHINE-READABLE VERSION
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May 1982

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SECTION 1 - INTRODUCTION

The *Third Santiago-Pulkovo Fundamental Stars Catalogue (SPF 3)* is a catalogue of right ascensions (the primary datum) of 671 fundamental bright stars, as measured with a Ziess broken transit instrument at Cerro Calán Observatory in Chile. The observations were made in series consisting of 70 stars observed along the meridian from $+42^\circ$ to the pole in upper culmination and from the pole to -70° in lower culmination; the program consisted of 231 series of observations.

In addition to the final reduced right ascensions for the program stars, the catalogue contains cross identifications to the N30 (Morgan 1952) and FK4 (Fricke et al. 1963) catalogues, visual magnitudes, approximate declinations (equinox 1950.0), mean epochs of the observations, and mean errors of the determined right ascensions.

This document describes the machine-readable version of the *SPF 3* catalogue as distributed by the Astronomical Data Center. It is intended to enable users to read and process the catalogue data without unnecessary problems and guesswork. The source reference should be consulted for details regarding the instrument characteristics, measurements, reductions, and comparisons with other catalogues. A copy of this document should be supplied with any machine-readable copy of the catalogue.

SOURCE REFERENCE

Loyola, P. R. and Shishkina, V. N. 1972, *Third Santiago-Pulkovo Fundamental Stars Catalogue (SPF 3)*, Publ. Dep. Astronomy, Univ. of Chile, 2 (No. 5) 159.

SECTION 2 - TAPE CONTENTS

A byte-by-byte description of the contents of the *SPF 3* catalogue is given in Table 1. The suggested format specifications are for FORTRAN formatted read statements and can be modified depending upon individual programming and processing requirements. Since some data fields contain blanks where data are missing (as noted in Table 1) for certain processing requirements it may be desirable to buffer the data in or read them with character format specifications and check for blank fields before proceeding. (The only normally numerical fields containing blanks in this catalogue are the FK4 and N30 cross identifications.) Alternate format specifications are given in parentheses.

Table 1. Tape Contents. *SPF 3* Catalogue.

Byte(s)	Units	Suggested Format	Description
1- 3	---	I3	<i>SPF 3</i> sequential number.
4- 7	---	I4 (A4)	FK4 number or blank.
8-12	---	I5 (A5)	N30 number or, in cases where the star is not in N30, the GC number (see byte 13). Blank if no data.
13	---	A1	Asterisk (*) if the number in bytes 8-12 is a GC identification; otherwise blank.
14-16	mag	F3.2	Visual magnitude m_V .
17-18	hours	I2	Right ascension (α) for equinox 1950.0.
19-20	min	I2	α
21-25	sec	F5.3	α
26-28	°	I3 (A1,I2)	Declination (approximate δ) for equinox 1950.0; sign always in byte 26.
29-31	'	F3.1	δ
32-35	years	F4.2	Mean epoch for the right ascension observations - 1950.0
36-37	---	I2	Number of observations
38-40	sec	F3.3	Mean error of α .

SECTION 3 - TAPE CHARACTERISTICS

The information contained in Table 2 is sufficient for a user to describe the indigenous characteristics of the machine-readable *SPF 3* file to a computer. Information easily varied from installation to installation, such as block size (physical record length), blocking factor (number of logical records per physical record), total number of blocks, tape density, number of tracks, and internal coding (EBCDIC, ASCII etc.) is not included. This information should always be supplied if secondary copies are transmitted to other users or installations.

Table 2. Tape Characteristics. *SPF 3* Catalogue.

NUMBER OF FILES	1
LOGICAL RECORD LENGTH (BYTES)	40
RECORD FORMAT	FB*
TOTAL NUMBER OF LOGICAL RECORDS	671

* Fixed block length (last block may be short)

SECTION 4 - REMARKS, ACKNOWLEDGMENTS AND REFERENCES

The SPF 3 catalogue was keyed directly to disk storage and proofread at the Astronomical Data Center, NASA Goddard Space Flight Center.

ACKNOWLEDGMENTS

Appreciation is expressed to Dr. A. Gutiérrez-Moreno of the Universidad de Chile for supplying the published catalogue in printed form, and to M. H. Warren for proofreading the machine-readable version.

REFERENCES

Fricke, W. and Kopff, A. 1963, *Fourth Fundamental Katalog (FK4)*, Veröff. Astron. Rechen-Inst. Heidelberg, No. 10.

Loyola, P. R. and Shishkina, V. N. 1972, *Third Santiago-Pulkovo Fundamental Stars Catalogue (SPF 3)*, Publ. Dep. Astronomy, Univ. of Chile, 2 (No. 5) 159.

Morgan, H. R. 1952, *Catalog of 5,268 Standard Stars for the Equinox and Epoch 1950.0 Based on the Normal System N30*, Astron. Papers Amer. Ephemeris 13, Part III.

SECTION 5 - SAMPLE LISTING

The sample listing given on the following pages contains logical data records exactly as they are recorded on the tape. Groups of records from the beginning and end of the catalogue are illustrated. The beginning of each record and bytes within the record are indicated by the column heading index across the top of each page (digits read vertically).

